ABSTRACT

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A surgical needle possesses enhanced needle attributes including needle sharpness and resistance to bending or breaking during use. The surgical needle includes an elongated needle body defining a longitudinal y axis and x and z axes transverse to the y axis. The elongated needle body includes a central shaft and a first end for attachment to a suture and a second needled end for penetrating tissue. The needled end includes lower and upper opposed planar surfaces and a pair of side surfaces extending between the lower and upper planar surfaces and contiguous therewith. The upper surface and side surfaces extend to a pointed tip. The lower surface extends to a cutting edge defined at the intersection of the side surfaces and proximal of the pointed tip. The cutting edge extends in oblique relation relative to the longitudinal axis of the needle body and terminates at the pointed tip. The linear cutting edge intersects the upper planar surface at an angle ranging from about 15° to about 30° relative to the longitudinal axis. The needle end may define a first transverse cross-sectional dimension adjacent the central shaft, and having a general trapezoidal configuration. The needle end also defines a second transverse cross-sectional dimension adjacent the pointed tip, and having a general triangular configuration. The first cross-sectional dimension may define a dimension along the z-axes corresponding to a first width of the needle end with the first width being greater than a corresponding shaft width of the central shaft. The first cross-sectional dimension defines a dimension along the x-axis corresponding to a first height of the needle end with the first height being less than a corresponding shaft height of the central shaft.